Remarks

Claims 9 through 12 are in prosecution. Claims 9 and 12 are rejected as anticipated by McLaughlin (US 6,421,570). Claims 10 and 11 are rejected as obvious under McLaughlin in view of Hamlin (US 6,310,888). The rejections are respectfully traversed.

Claim 11 is objected to on the grounds that "the limitation ending in "message:" does not appear to act as a preamble for the selecting step.   The claim is amended to overcome this objection and to correct an inadvertent misspelling.

The rejection of claims 9 and 12 is now addressed.   As was explained in the unentered amendment after final that was filed on December 18, 2003, Applicant's claimed invention uses a completely different publish/subscribe architecture as compared to that of McLaughlin. In Applicant's claimed invention, as now made more explicit by the amendments to claim 9, the publisher applications (e.g., 31a, 31b in Fig. 3) do not need to know any details about each other or about any subscriber preferences. For example, the publisher applications do not need to maintain any subscription data about each subscriber application 33, since the broker 32 takes care of this by acting as an intermediary between the publishers and the subscribers.

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McLaughlin specifically teaches that the publishers maintain subscriber information, as was explained in Applicant's last response. Furthermore, McLaughlin discloses nothing regarding broker message transformation nodes, the selection of which effects a unique processing or transformation of a data message according to the broker node selection. Indeed, a brief perusal of Fig. 3 reveals that there is a one-to-one relationship between a publishing node P and subscriber nodes S. For example, publishing node P1 sends data directly to subscriber nodes S3 and SA5. There is no data transformation involved. These assertions are supported by the discourse at col. 7, line 57 to copl.8, line 24. Similarly, with reference to Fig. 4 and its corresponding teaching in the specification, it is seen that the question is when and whether to send data from a publisher to a subscriber. There is no notion of a data transformation according to selection of a broker node. Therefore, these features of claim 9 should be held to patentably distinguish claim 9 from McLaughlin.

In the Advisory Action responsive to the unentered amendment, the Examiner comments that McLaughlin teaches a broker in the form of the CDA (Control Data Access). However, the CDA in McLaughlin is a layer of the subscriber and is thus a part of the subscriber. Claim 9 is further amended to recite that the publisher selects one publication point node of the broker, but that the publisher, on another

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occasion, could select another publication point node.   In McLauglin, if the publication point of the broker is read as the CDA, then the publisher cannot select a different publication point (a different CDA) because the CDA is part of the publisher or subscriber (it is a layer of the publisher or subscriber).   Therefore, these features of claim 9 should also be held to distinguish claim 9 from McLaughlin.

Still further, McLaughlin clearly fails to teach or suggest the claim 9 features of how the broker is constructed, specifically, the plurality of publication points, with each publication point being followed by a unique set of broker nodes each of which carries out some unique processing on the message.   This claimed feature allows a publisher to select a specific publication point node to obtain a specific processing or transformation of the message that is unique to the selected publication node. If the publisher wants a different set of processing tasks to be carried out on the message, then a different publication point node would be selected.   Therefore, these further features of claim 9 should also be held to patentably distinguish claim 9 from McLaughlin.

Examiner admits that McLaughlin does not disclose broker message transformation nodes and cites Hamlin (US 6,310,888) for supplying the missing teaching.   Hamlin
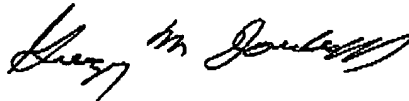
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teaches a system whereby a source node transmits data to a destination node in a simple bus network (see Fig.1). A transmission involves two nodes, the source and the destination. There is no intermediate node. At the source node, the data type is determined and an outbound translator translates the data to a standard canonical format (see Fig. 2 and col. 4, lines 4 to 20). At the destination node, the data type is again determined and the data transformed from the standard format to the format required by the destination (see Fig. 2 and col. 4, lines 20 to 26). Thus, again there is no notion of a data transformation based on a selection of an intermediate broker node by a publisher. The first translation is performed by the source. The reverse translation is performed by the destination. There is no disclosure of a broker tree, nor of the selection of a particular broker node within a broker tree to determine the type of transformation. A combination of McLaughlin and Hamlin would result in a publishing node P of McLaughlin performing a translation to a standard type based on message type, and a reverse translation at a subscriber node S also based on message type. But, the combination would not include intermediate broker nodes, and the selection of an intermediate node to specify the translation.

Applicant believes that patentable novelty is demonstrated by the above arguments and amendments and that the claims are in condition for allowance. Accordingly,

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Examiner is requested to reconsider this case and pass it to issue.

Respectfully Submitted,

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